

Claims

1. A test head for a semiconductor integrated circuit tester, comprising:

a plurality of contact pins connected to tester channels of the tester, each contact pin having a free end for engaging a load board, and

a conductive switch element displaceable between a first position, in which the switch element is electrically isolated from one or more contact pins, and a second position, in which the switch element is in electrically conductive contact with one or more contact pins.

2. A test head according to claim 1, comprising a support frame and a plurality of pin cards mounted in the support frame for implementing the tester channels, and wherein the plurality of contact pins are attached to a pin card.

3. A test head according to claim 2, wherein the pin card includes a switch block in which the contact pins are mounted and through which the contact pins extend, and wherein the switch block is formed with a cavity through which the contact pins extend and the switch element is located in said cavity.

4. A test head according to claim 3, wherein the switch block is made of electrically conductive material and the contact pins comprise a first group of contact pins mounted in the switch block in a manner such that the contact pins of the first group are in electrically conductive contact with the switch block and a second group of contact pins mounted in the switch block in a manner such that when the switch element is in the first position the contact pins of the second group are electrically isolated from the switch block, and wherein the switch element, when in the second position, is in electrically conductive contact with at least one contact pin of the first group and at least one contact pin of the second group and electrically connects said one

contact pin of the first group and said one contact pin of the second group.

5. A test head according to claim 4, wherein the second group of contact pins comprises first and second subgroups and the switch element, when in the second position, is in electrically conductive contact with the pins of the first subgroup and is electrically isolated from the pins of the second group.

6. A test head according to claim 4, wherein the switch element is displaceable linearly between the first position and the second position.

7. A test head according to claim 1, wherein the switch element includes a spring member that is configured so that when the switch element is in the first position, the spring member is spaced from said one contact pin and when the switch element is in its second position the spring member is in electrically conductive pressure contact with said one contact pin.

8. A test head according to claim 3, wherein the switch block is made of electrically conductive material and the contact elements comprise a first row of contact elements mounted in the switch block in a manner such that the contact pins of the first row are in electrically conductive contact with the switch block and a second row of contact pins mounted in the switch block in a manner such that when the switch element is in the first position the contact pins of the second row are electrically isolated from the switch block, the contact pins of the second row being in first and second groups, and wherein the switch element, when in the second position, is in electrically conductive contact with the contact pins of the first groups.

9. A semiconductor integrated circuit tester comprising:

test head according to claim 1, wherein the switch element is displaceable linearly between its first position and its second position and the test head includes a follower attached to the switch element and a bias spring urging the switch element towards its first position,

a load board attached to the test head and engaged by the contact pins, and

an actuation element that is attached to the load board and engages the follower and urges the switch element to its second position against resistance of the bias spring.

10. A test head for a semiconductor integrated circuit tester, comprising:

a support frame, and

a plurality of pin cards mounted in the support frame, each pin card including

a plurality of contact pins connected to tester channels of the tester, each contact pin having a free end for engaging a load board, and

a conductive switch element displaceable between a first position, in which the switch element is electrically isolated from one or more contact pins, and a second position, in which the switch element is in electrically conductive contact with one or more contact pins.

11. A pin card for mounting in a test head of a semiconductor integrated circuit tester to implement test channels of the tester, the pin card including:

a plurality of contact pins connected to terminals of respective test channels, each contact pin having a free end for engaging a load board, and

a conductive switch element displaceable between a first position, in which the switch element is electrically isolated from one or more contact pins, and a second

position, in which the switch element is in electrically conductive contact with one or more contact pins.

12. An assembly for attachment to a pin card of a semiconductor integrated circuit tester, comprising:

a pogo block,

at least two pogo pins mounted in the pogo block,

a conductive switch element mounted in the pogo block and displaceable between a first position, in which the switch element is electrically isolated from one or more pogo pins, and a second position, in which the switch element is in electrically conductive contact with one or more pogo pins.